DEPARTMENT OF BUILDING AND CODE SERVICES

CARMEL, INDIANA

www.carmel.in.gov

BUILDING GUIDE AND PLAN REVIEW FOR SINGLE FAMILY GARAGES

Building Commissioner:	**Jim Blanchard**	**317-571-2450**
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For a quick response to questions please call or visit the Building and Code Services Office:
Inspector-On-Call – 317-571-2481
Hours: Monday – Friday 8:00 am – 9:00 am.

This pamphlet is a guide to the most common questions, issues and common oversights. It is not intended nor shall it be considered a complete set of requirements.

The purpose of this Building Guide is to help facilitate the plan review process. By following these guidelines you may expect your review turnaround, <u>in most cases</u>, to be 24 hours.

How to Use this Guide:

1. **Review this Building Guide and Plan Review Handout.**

2. **Complete the following**

3. **Complete this Building Guide by filling in the blanks on page 12, indicating which construction details will be used. Builder/Owner should initial where indicated in this packet.**

4. **Provide 2 Plot Plans (site plans) showing dimensions of your project or addition and its relationship to existing buildings or structures on the property and the distance to existing property lines drawn to scale. (See example page 10)**

5. **Show building elevations on page 13. Two sides of elevation required.**

6. **Fill out a Building Permit Application.**

The majority of permit applications are processed with little delay. The submitted documents will help determine if the project is in compliance with building safety codes, zoning ordinances and other applicable laws.

1 Car 2 Car 3 Car _____Other

Attached _____Sq. Footage
Rough In and Final Inspection Required

Detached _____Sq. Footage
Rough In and Final Inspection can be combined if garage is not dry walled.

Manufactured trusses Yes No

If manufactured trusses are used, truss diagrams must be included with the building plans, for all trusses being used. Truss diagrams must be STAMPED with the seal of the registered architect or engineer who is responsible for that design.

Initial: _____

Monolithic pour may be used if structure is less than 721 S.F. and more than 6' from the primary structure (If less than 6' to the structure, the footings shall be 30" below finished grade) and meet current zoning and set back requirements.

Monolithic Footings 721 Square Feet Maximum 6 x 6 – w2.9 welded wire fabric or equivalent is required when monolithic slab footing system is used. One story unless otherwise approved by the building official. (Fire Prevention and Building Safety Commission; 675 IAC 14-4.3-26)

8" W x 18" D or

12" W x 12" D

Inspections Required:

Footings	Grade stakes are required to be installed. All water should be pumped out and footings scraped clean to solid ground and level.. Forms are to be complete. Tarps and insulation covers shall be removed for inspection. Make sure you are staying BEHIND the Building Line. INSPECTION MUST BE APPROVED BEFORE YOU POUR.
Rough In	DO NOT INSULATE prior to inspection and approval. Inspection is to be approved BEFORE Insulation and wall coverings are installed. Structure is to be WEATHER TIGHT: Windows, doors installed and roofing complete. All draft stops and fire blocking must be installed for this inspection. Access to all areas must be provided. All rough-in work should be completed. (Plumbing, Electrical, HVAC)
Final	All electrical, plumbing, and mechanical work, as well as any items that are determined to be in the interest of public health, safety, and welfare shall be 100% complete prior to approval of the Final inspection and issuance of a Certificate of Occupancy. Final grading, rear, and side swales shall be completed PRIOR to the final inspection, "weather permitting." After the Final inspection is performed and approved, a Temporary or Full Certificate of Occupancy (C/O) may be issued. Temporary C/O's will require a final re-inspection of incomplete items. A minimum of 24 hours is required before the full Certificate of Occupancy will be issued. **ANY PRODUCT OR PERSONAL PROPERTY OF ANY TYPE CONSTITUTES OCCUPIED. LATE FEES WILL APPLY.**
Fire Protection	Attached garages shall be separated from living areas with an approved material such as a minimum ½ inch gypsum board or equivalent applied to the garage side. Openings from a private garage directly into a room used for sleeping purposes shall not be permitted. Other openings between the garage and residence shall be equipped with solid wood doors not less than 1 3/8 inches (35 mm) in thickness, solid or honeycomb core steel doors not less than 1 3/8 inches (35 mm) thick, or 20-minute fire-rated doors.

Initial: _____

To monitor progress of your permit and to check inspection results please go to: www.carmel.in.gov

Then follow the steps listed below.

1. Click on **Department of Community Services.**
2. On drop down screen click on first box indicating **Department of community Services.**
3. Under **Quick Links.**
   a. Click on **"One Stop Shop"**
4. Click on **Permit Status.** This brings you to **"On-Line Permitting & Code Enforcement."**
5. Left side of screen, click on **Permit Status.**
6. Type in **Permit Number** and/or **Street Address.**
7. Click on **Permit Number** box.
8. Click on **Search.**
9. This is **Permit Details Screen.**
   a. Click on the **More Information** screen.
10. On the left side of the screen click on area of information needed i.e., **Inspections.**

The Most Common Overlooked Safety and Building Codes

1. GFCI's not installed.
2. Missing cover plates.
3. Anchor bolts do not meet code/or not installed.
4. Joists over notched or bored too close to bottom or top.
5. Attic access not in place.
6. Wiring not secured vertically to the maximum 4.5 feet.
7. Top plates not overlapped and corner straps not in place
8. Nail plates needed at romex where too close to edge of stud.
9. Blocking not installed at 8foot break in plywood/OSB.
10. Joists need hangers or are missing nails.
11. Garage floors slopping toward the main vehicle entry doorway.

Initial: _____

City of Carmel
6 feet or Less, GARAGE
(Accessory Structure)

An **ATTACHED # 2** Garage is:
1. Less than 6 feet from the main residence OR attached to the residence
2. **May** be used for human occupancy

Side yard and Rear yard SET BACK

3. Same as the house set backs for the zoning district.
4. Can be right up to an easement.

Front yard SET BACK

5. Same as the house set back for the zoning district.

Corner lots and lots with street at front and rear.

See City of Carmel Zoning Ordinance
Chapter 25 Additiona Use Regulation,
Section B Height and Area Requirements,
3. Minimum Lot Standards,
a. Minimum front yard,
ii. Corner Lots.
iii. Through Lots

Type of Construction;

1. Same height as existing house.

2. MUST use any of the following foundations;
   a. Trench or inverted T footing, minimum of 30 inches below grade.

3. Water and electrical allowed.

4. Wood and/or Concrete block frame.

Please contact your Home Owners Association PRIOR to submitting your application to the City of Carmel Building and Code Department for ***architectural style*** **and** ***siding material***.\

Initial: _____

City of Carmel
6 to 10 feet, GARAGE
(Accessory Structure)

An **ATTACHED # 1** Garage is:
1. Less than 10 feet from the main residence.
2. **Not** intended for human occupancy.

Side yard and Rear yard SET BACK

3. Same as the house set backs for the zoning district.
4. Can be right up to an easement.

Front yard SET BACK

5. Same as the house set back for the zoning district.

Corner lots and lots with street at front and rear.

See City of Carmel Zoning Ordinance
Chapter 25 Additiona Use Regulation,
Section B Height and Area Requirements,
3. Minimum Lot Standards,
a. Minimum front yard,
ii. Corner Lots.
iii. Through Lots

Type of Construction;

1. Not greater in height than 18 feet.

2. May use any of the following foundations;
   a. Trench or inverted T footing, minimum of 30 inches below grade.
   b. Monolithic foundation
      2 different designs,
      up to a maximum of 721 square feet.
   c. Post with piers.

3. Water and electrical allowed.

4. Wood and/or Concrete block frame.

Please contact your Home Owners Association PRIOR to submitting your application to the City of Carmel Building and Code Department for ***architectural style*** **and** ***siding material***.

Initial: _____

City of Carmel
10 foot Detached GARAGE
(Accessory Structure)

A **DETACHED** Garage is:
1. Not less than 10 feet from the main residence.
2. **Not** intended for human occupancy.

Side yard and Rear yard SET BACK

3. Not less than 5 feet to the property line and,
4. Not closer than 3 feet to an easements.

Front yard SET BACK, the <u>GREATER</u> of the following,

5. 25 feet behind the front of the house.
6. 25 feet behind the house set back line.

Corner lots and lots with street at front and rear.

See City of Carmel Zoning Ordinance
Chapter 25 Additional Use Regulation,
Section B Height and Area Requirements,
3. Minimum Lot Standards,
a. Minimum front yard,
ii. Corner Lots.
iii. Through Lots

Type of Construction;

1. Not greater in height than 18 feet.

2. May use any of the following foundations;
   a. Trench or inverted T footing, minimum of 30 inches below grade.
   b. Monolithic foundation
      2 different designs,
      up to a maximum of 721 square feet.
   c. Post with piers.

3. 1-120 volt circuit.
   Sub-panel from main house, minimum 60 amps.
   Main panel from utility

4. Wood and/or Concrete block frame.

Please contact your Home Owners Association PRIOR to submitting your application to the City of Carmel Building and Code Department for *architectural style* and *siding material*.

Initial: _____

SINGLE FAMILY GARAGE

Detached Garages

Detached garages shall not be used for human occupancy.

Detached garages shall be located:

1. Not less than 10 feet from the main residence.

2. Side Yard Setbacks:
   a. Not less than 5 feet from the property line and/or
   b. Within 3 feet of an easement

3. Front Yard Setbacks - The greater of the following:
   a. 25 feet behind the rear of the house or
   b. 25 feet behind the required front setback line

4. Corner Lots and Lots with Front and Rear Street Frontage:
   a. See City of Carmel Zoning Ordinance, Chapter 25 Additional Use Regulations, Section B Height and Area Requirements.

Detached Garage Construction Requirements:

1. May be no greater than 18 feet in height

2. May use any of the following footing/foundations:
   a. Under 721 square feet may use a monolithic footing which is either 8" x 18" or 12" x 12"
   b. Trench or T footing, which extends 30" below finish grade (Must be used if structure is over 721 square feet.)

3. Water and electrical permitted.

4. Wood or masonry construction permitted.

Please contact your Home Owners Association for additional requirements prior to submitting your application to the City of Carmel Building Services for review.

Initial: _____

GARAGES

GENERAL BUILDING CODE REQUIREMENTS

a. Footings: Must extend to frost depth for all attached garages. A "floating slab" may be used for the foundation support of detached garages on all soils except peat and mulch. Slab perimeter must be sized and/or reinforced to call all design loads. The minimum slab thickness must be 3 ½ inches and reinforcing recommended. The minimum concrete strength required is 3500 pounds per square inch for floating slab. Protect concrete from freezing until cured.

b. Anchor Bolts or Straps: Foundation plates must be anchored to the foundation with not less than ½ inch diameter steel bolts, or approved straps, embedded at least 7 inches into the concrete and spaced not more than 6 feet apart. There must be a minimum of two bolts per piece with one bolt located within 12 inches of each end of each piece. Anchor straps must be installed per the manufacturer.

c. Sill Plate: All foundation plates on sills and sleepers on a concrete or masonry slab, which is in direct contact with earth, and sills which rest on concrete or masonry foundation must be of approved treated wood, heartwood or redwood, block locust or cedars having a width not less than that of the wall studs.

d. Wall Framing: Studs must be placed with their wide dimension perpendicular to the wall and, not less than three studs must be installed at each corner of an exterior wall. Minimum stud size is 2" x 4" and spaced not more than 24 inches on center.

e. Top Plate: Bearing and exterior wall studs need to be capped with double top plates installed to provide overlapping at corners and at intersections with other partitions. End joints in double top places must be offset at least 24 inches.

f. Sheathing, Roofing and Siding: Approved wall sheathing, siding, roof sheathing and roof covering must be installed according to the manufacturers specifications. Wall sheathing may be required to have a weather-resistive barrier installed over the product prior to application of the siding product.

g. Wood and Earth Separation: Wood used in construction located nearer than 6 inches to earth shall be treated wood.

h. Roof Framing: Size and spacing of conventional lumber used for roof framing depends upon the roof pitch, span, the type of material being used, and the loading characteristics being imposed. Garages must be designed for the appropriate snow load in our area. (Contact your local building inspector.)

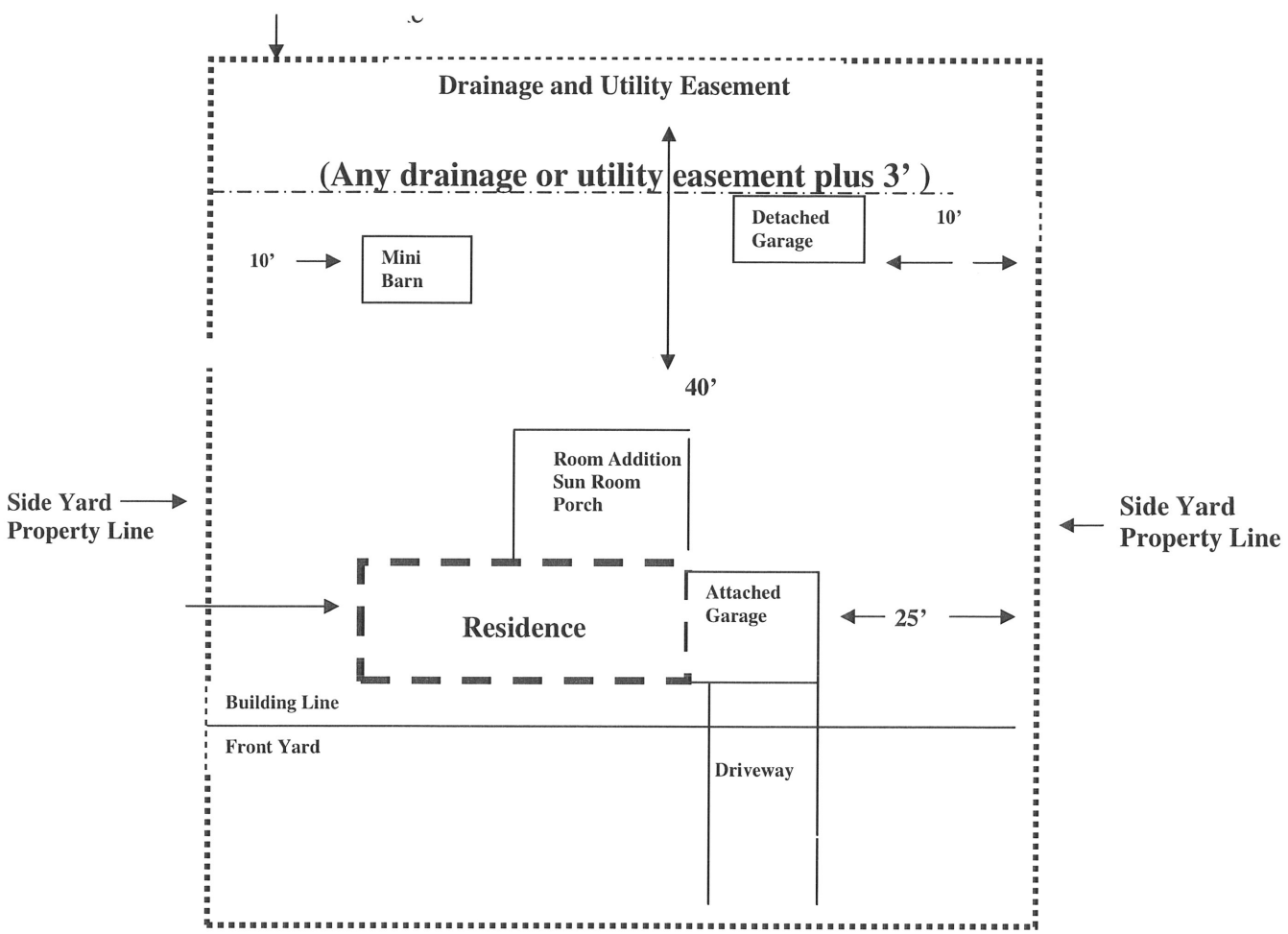
Rafters need to be framed directly opposite each other at the ridge. A ridge board at least 1 inch (nominal) thickness and not less in depth than the cut end of the rafter is required for hand framed roofs. At all valleys and hips, there also need to be a single valley or hip rafter not less than 2 inches (nominal) thickness and not less in depth than the cut of the rafter.

Rafters must be nailed to the adjacent ceiling joist to form a continuous tie between exterior walls when the joists are parallel to the rafters. Where not parallel, rafters must be tied by a minimum 1 inch by 4 inch (nominal) cross tie spaced in a minimum four foot on center. Manufactured trusses are to be installed per the manufacturer.

i. Separation Required: An attached garage shall be separated from the residence and its attic area by not less than ½ inch (12.7 mm) gypsum board applied on the garage side. Where the separation is a floor-ceiling assembly, the structure supporting the separation shall also be protected by not less than ½ inch (12.7 mm) gypsum board or equivalent.

Initial: _____

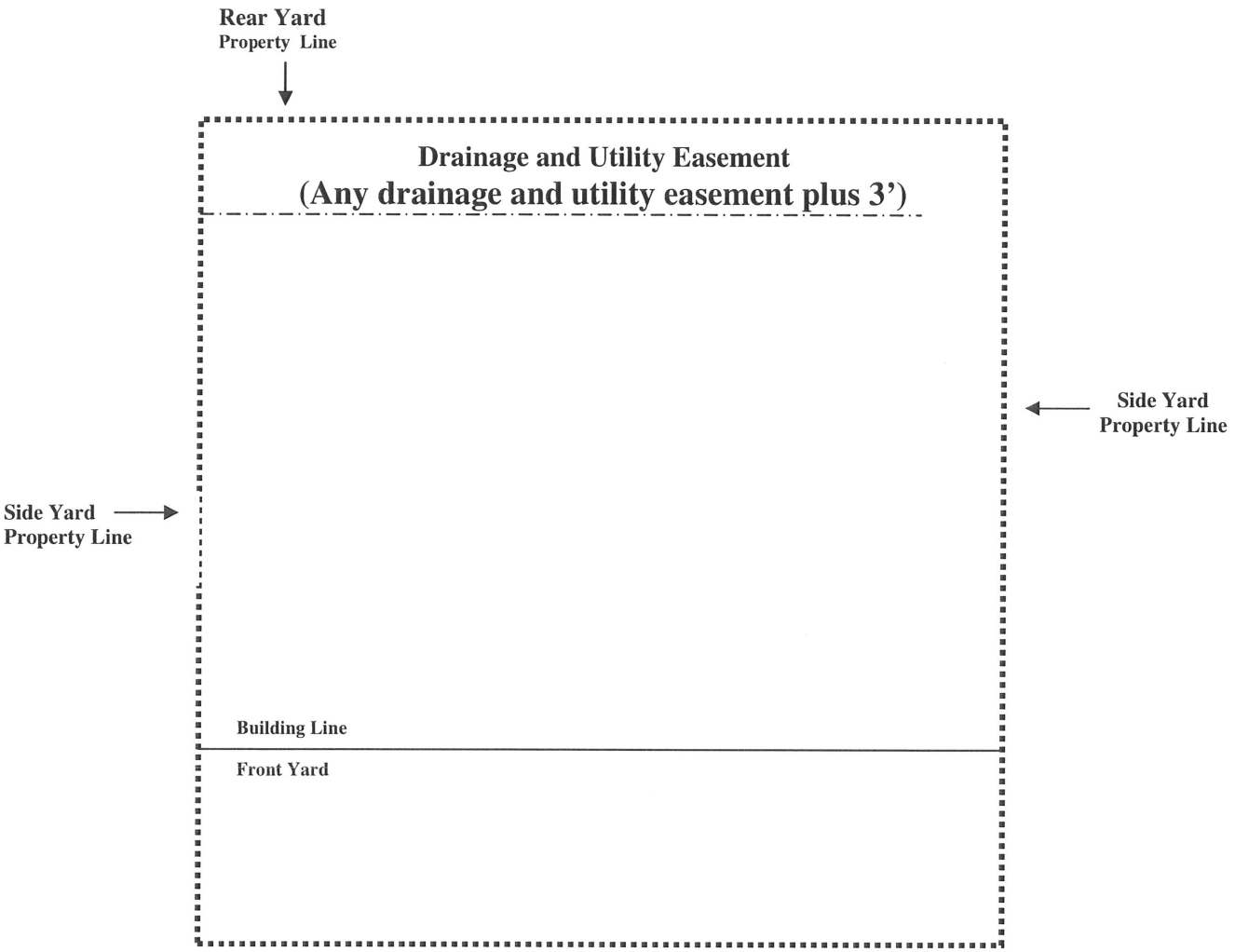
TYPICAL PLOT PLANS
(Site Plan)
EXAMPLE



Accessory Structure: When <u>closer</u> than 10' to the main building, same as the main structure side yard and rear yard set backs.
When <u>more</u> than 10' from the main building, within 5 feet of the rear or side yard setback. But, not within 3' of an easement or within the easement

Initial: _____

TYPICAL SITE PLANS



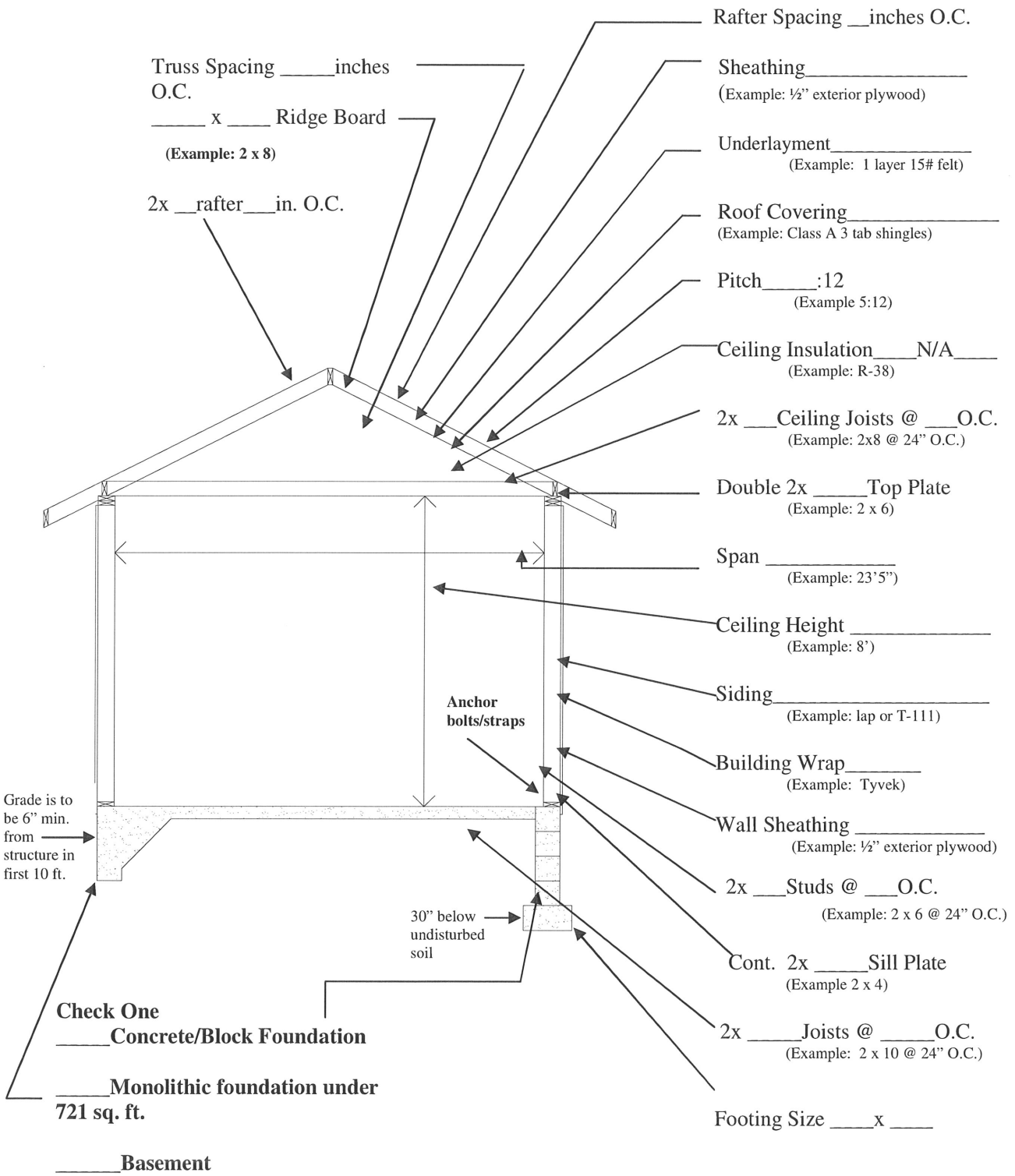
Set Back Distances:
Please Circle Applicable Zoning District:

Zoning District:	**S-1**	**S-2**	**R-1**	**R-2**	**R-3**	**R-4**
Min Front Yard:	40'	35'	35'	35'	30'	25'
Min. Side Yard:	10'	10'	10'	5'	5'	5'
Agg.Side Yard:	30'	25'	20'	15'	15'	10'
Min. Rear Yard:	20'	20'	20'	20'	20'	20'
Min Lot Width:	120'	100'	100'	80'	60'	50'
Max Lot Coverage:	35%	35%	35%	35%	35%	35%

Initial: _____

Single Family Addition and Garage

Note: For roofs with slopes between 2:12-4:12 follow manufacturers instructions for low slope application of roofing material.



Initial: _____

BUILDING ELEVATIONS